

## WO2005078908

Publication Title:

ELECTRIC OSCILLATORY MACHINE

Abstract:

Abstract of WO2005078908

An oscillatory machine (200) comprises a support (220) having a load carrying surface (222) and an opposite surface (224), an electric motor (21) having an air gap (218) through which lines of magnetic flux extend, an armature (214) coupled to the support, said armature provided with at least two electrically conductive paths [CA,CB,CC] each having at least one current carrying segment disposed in the air gap and substantially perpendicularly intersected by the lines of magnetic flux (fig.1) to produce thrust forces [TA, TB, TC] which act to move the armature and thus said support in two dimensions in a plane, a bearing support system (272) suspending said armature in the air gap, said bearing support system disposed between the said support and said armature. Data supplied from the esp@cenet database - Worldwide

-----

Courtesy of <http://v3.espacenet.com>

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number  
**WO 2005/078908 A1**

(51) International Patent Classification<sup>7</sup>: **H02K 33/00**,  
1/34

(21) International Application Number:  
PCT/AU2005/000207

(22) International Filing Date: 17 February 2005 (17.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/781,923 18 February 2004 (18.02.2004) US

(71) Applicant (for all designated States except US): **MER-  
LEX CORPORATION PTY LTD** [AU/AU]; 4 Giddens  
Court, North Lake, Western Australia 6163 (AU).

(72) Inventors; and

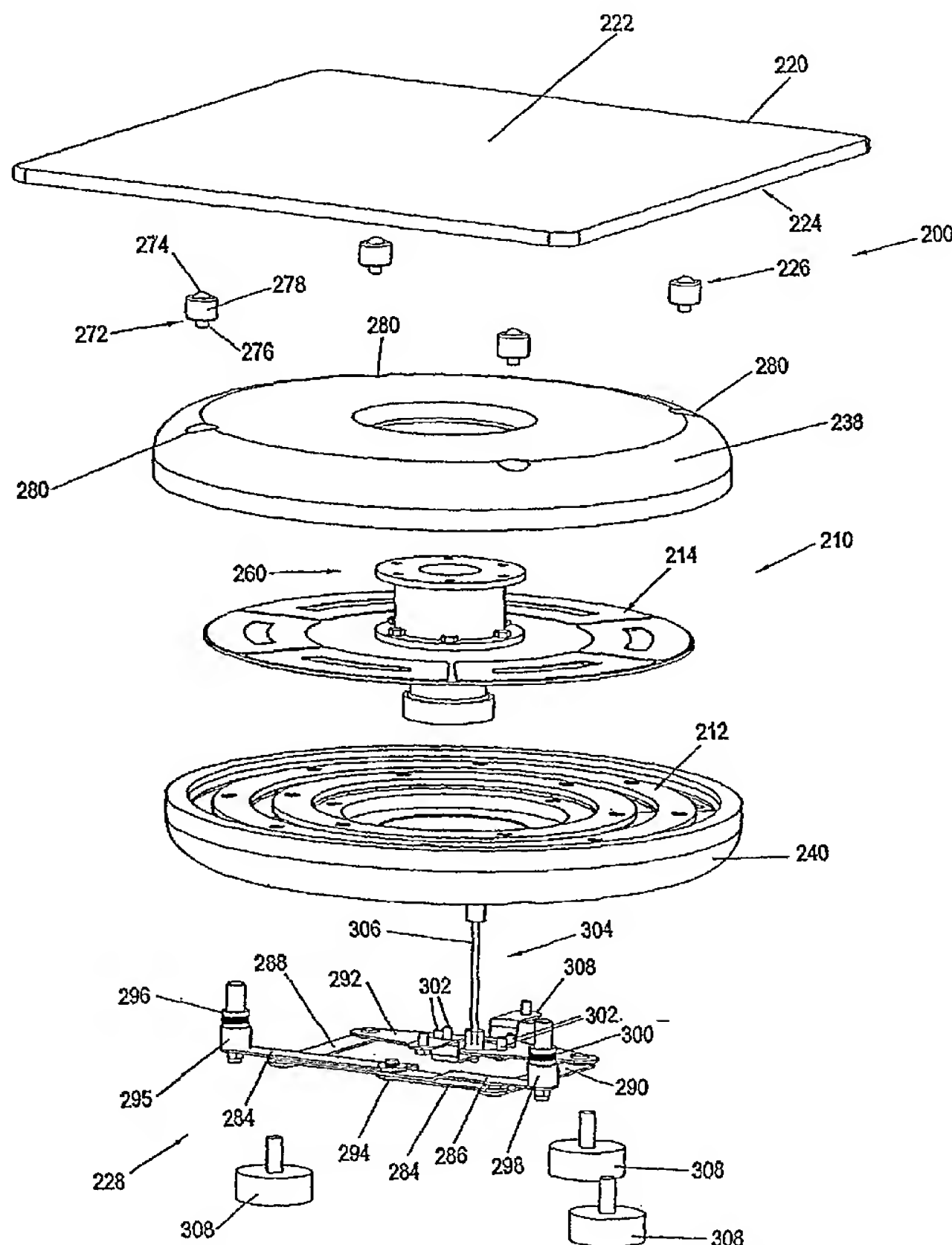
(75) Inventors/Applicants (for US only): **HOBSON, Barry,  
Reginald** [AU/AU]; 4 Giddens Court, North Lake, Aus-  
tralia 6163 (AU). **PAOLIELLO, Angelo** [AU/AU]; Lot 10  
Bambrook Street, Sawyers Valley, Western Australia 6074  
(AU).

(74) Agent: **GRIFFITH HACK**; Level 6, 256 Adelaide Ter-  
race, Perth, Western Australia 6000 (AU).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

[Continued on next page]

(54) Title: ELECTRIC OSCILLATORY MACHINE



(57) Abstract: An oscillatory machine (200) comprises a support (220) having a load carrying surface (222) and an opposite surface (224), an electric motor (21) having an air gap (218) through which lines of magnetic flux extend, an armature (214) coupled to the support, said armature provided with at least two electrically conductive paths [C<sub>A</sub>, C<sub>B</sub>, C<sub>C</sub>] each having at least one current carrying segment disposed in the air gap and substantially perpendicularly intersected by the lines of magnetic flux (fig.1) to produce thrust forces [T<sub>A</sub>, T<sub>B</sub>, T<sub>C</sub>] which act to move the armature and thus said support in two dimensions in a plane, a bearing support system (272) suspending said armature in the air gap, said bearing support system disposed between the said support and said armature.

WO 2005/078908 A1



(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

— *with international search report*